

WHAT IS CLAIMED IS:

1. A recording medium having a data structure for managing a data area of the recording medium, comprising:

a temporary defect management area storing a first data block, the first data block including a space bit map and a temporary definition structure, the space bit map indicating recordation status of the data area, and the temporary definition structure providing a first pointer to the space bit map.

2. The recording medium of claim 1, wherein the space bit map indicates recordation status of the data area on a recording unit by recording unit basis.

3. The recording medium of claim 2, wherein the recording unit is a cluster.

4. The recording medium of claim 3, wherein the first data block includes at least one cluster.

5. The recording medium of claim 1, wherein the temporary definition structure also provides a second pointer to a temporary defect list stored in a

second data block in the temporary defect management area, the temporary defect list indicating defective portions of the data area.

6. The recording medium of claim 5, wherein the first pointer indicates a first physical sector number of the space bit map and the second pointer indicates a first physical sector number of the temporary defect list.

7. The recording medium of claim 5, wherein the first and second pointers identify a most current space bit map and a most current temporary defect list as of when the temporary definition structure is recorded.

8. The recording medium of claim 1, wherein the temporary defect management area stores a second data block, the second data block including a temporary defect list and a temporary definition structure, the temporary defect list of the second data block indicating defective portions of the data area, the temporary definition structure of the second data block providing a first pointer to the space bit map of the first data block and a second pointer to the temporary defect list.

9. The recording medium of claim 8, wherein the first pointer of the temporary definition structure in the second data block indicates a first physical sector

number of the space bit map in the first data block and the second pointer of the temporary definition structure in the second data block indicates a first physical sector number of the temporary defect list in the second data block.

10. The recording medium of claim 8, wherein the temporary defect list in the second data block indicates defective clusters of the data area.

11. The recording medium of claim 8, wherein the first and second pointers in the temporary definition structure of the second data block identify a most current space bit map and a most current temporary defect list as of when the temporary definition structure of the second block is recorded.

12. The recording medium of claim 1, wherein the temporary defect management area stores a second data block, the second data block including a temporary defect list and a temporary definition structure, the temporary defect list of the second data block indicating defective portions of the data area, the temporary definition structure of the second data block provides a first pointer to a space bit map residing in a data block other than the first data block and provides a second pointer to the temporary defect list in the second data block.

13. The recording medium of claim 12, wherein the first pointer of the temporary definition structure in the second data block indicates a first physical sector number of the space bit map in the other data block and the second pointer of the temporary definition structure in the second data block indicates a first physical sector number of the temporary defect list in the second data block.

14. The recording medium of claim 13, wherein the temporary definition structure in the first data block includes a second pointer to the temporary defect list in the second data block.

15. The recording medium of claim 1, wherein the space bit map includes space bit map data, a data pointer pointing to the space bit map data, and a length indicator indicating a length of the space bit map data.

16. The recording medium of claim 15, wherein the data pointer indicates a first physical sector number of the space bit map data.

17. The recording medium of claim 15, wherein the space bit map data includes a status indicator associated with each recording unit of the data

area, the status indicator indicating whether data is recorded in the associated recording unit.

18. The recording medium of claim 17, wherein the recording unit is a cluster.

19. The recording medium of claim 15, wherein the space bit map further includes a format indicator indicating a format of the space bit map.

20. The recording medium of claim 15, wherein

the recording medium is a dual layer optical disc; and

the space bit map further includes a layer indicator indicating a layer to which the space bit map corresponds.

21. The recording medium of claim 1, wherein the recording medium is an optical disk.

22. A method of recording management data on a recording medium, comprising:

recording a first data block in a temporary defect management area, the first data block including a space bit map and a temporary definition structure, the space bit map indicating recordation status of the data area, and the temporary definition structure providing a first pointer to the space bit map.

23. A method of reproducing data from a recording medium, comprising:

reproducing at least a portion of data recorded on the recording medium based on a first data block recorded in a temporary defect management area of the recording medium, the first data block including a space bit map and a temporary definition structure, the space bit map indicating recordation status of the data area, and the temporary definition structure providing a first pointer to the space bit map.

24. An apparatus for recording management data on a recording medium, comprising:

a driver for driving an optical recording device to record data on the recording medium; and

a controller for controlling the driver to record a first data block in a temporary defect management area, the first data block including a space bit map and a temporary definition structure, the space bit map indicating

recordation status of the data area, and the temporary definition structure providing a first pointer to the space bit map.